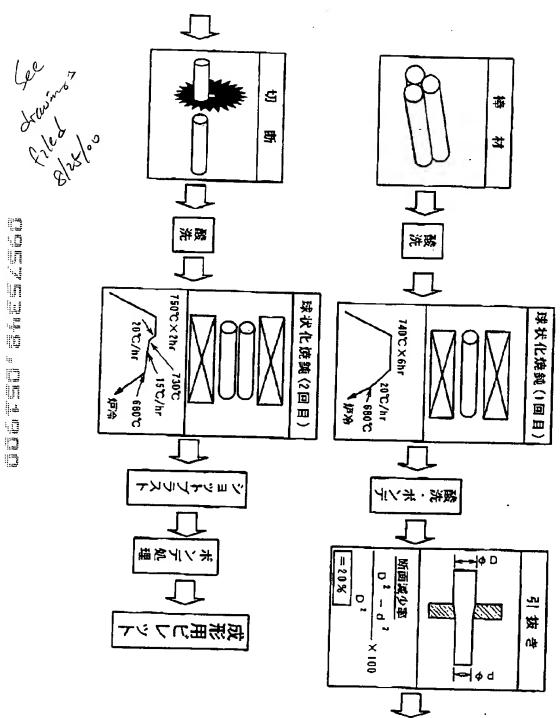
FIG. 1



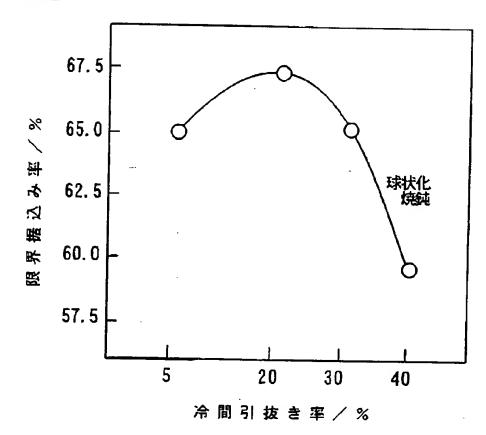
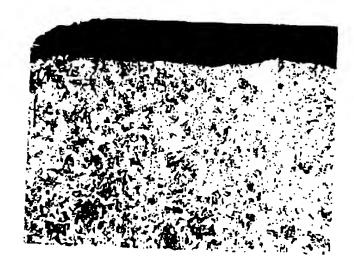


FIG. 3



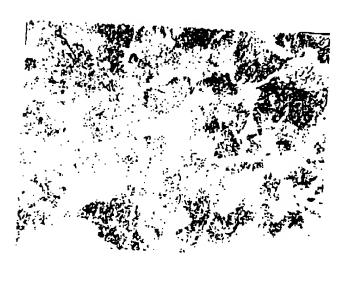
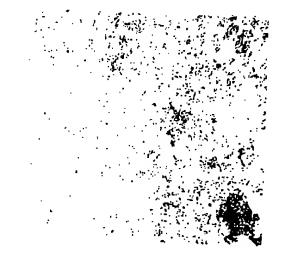


FIG. 4





· (b)

FIG. 5



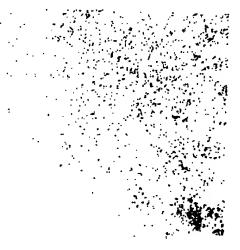
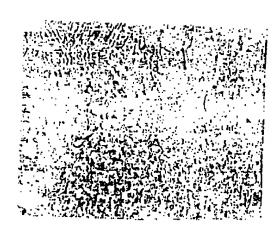


FIG. 6

(A) 材料1

アスペクト比=506%



(B)材料2

アスペクト比=347%



(C)村料3

アスペクト比=300%

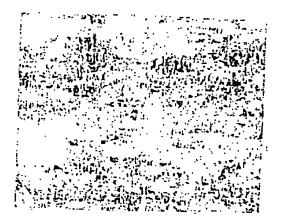


FIG. 7

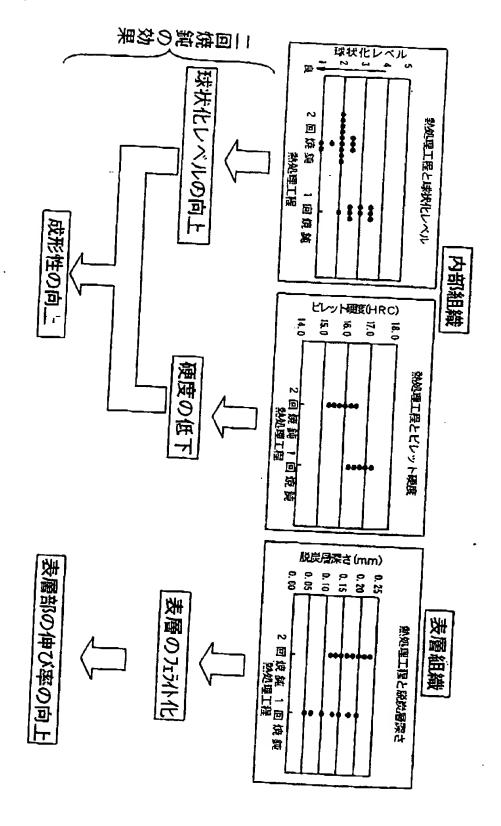


FIG. 8

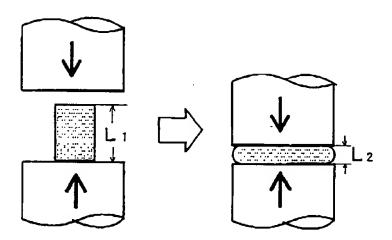


FIG. 9

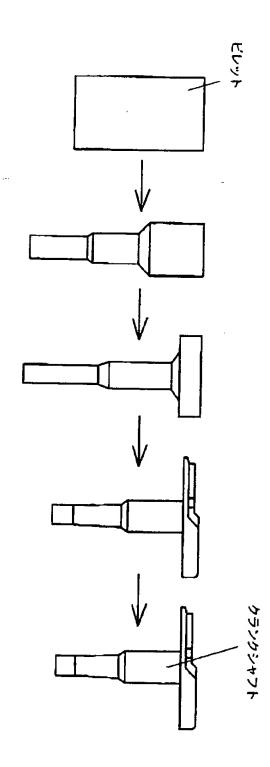


FIG. 10

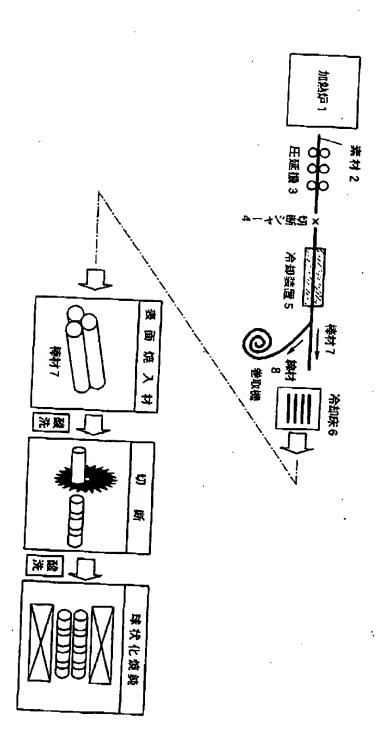
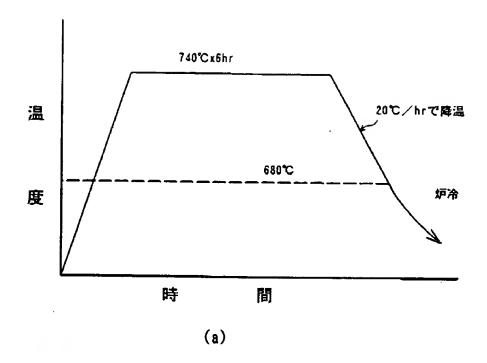


FIG. 11



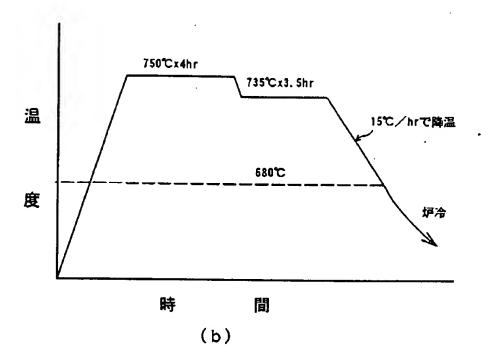
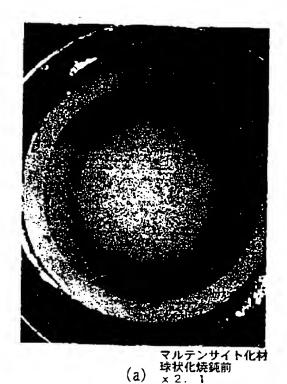


FIG. 12



マルテンサイト相 樹脂 (b)

FIG. 13

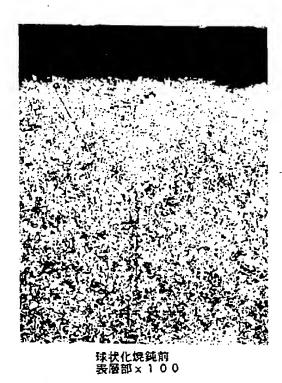


FIG. 14

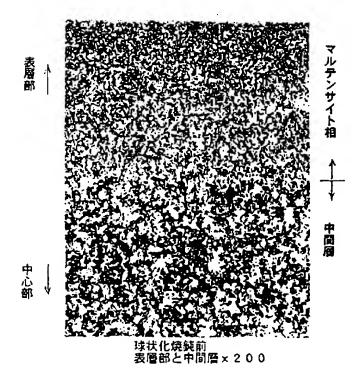


FIG. 15



球状化焼鈍前 1 / 2 R 部 × 4 0 0

FIG. 16



球状化烧鈍前 中心部×400

FIG. 17



マルテンサイト化材 球状化焼鈍パターン1後 ×2、1

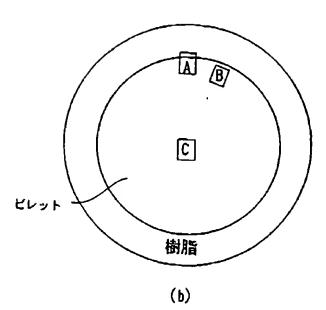


FIG. 18



FIG. 19

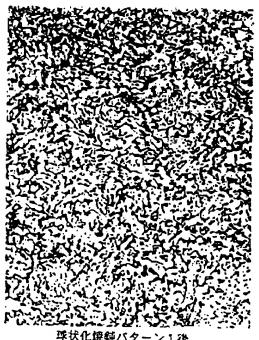


FIG. 20

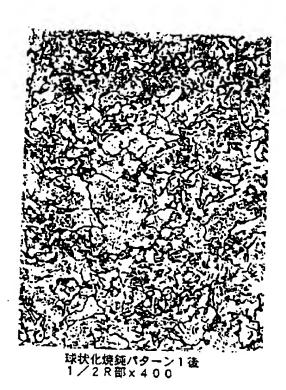
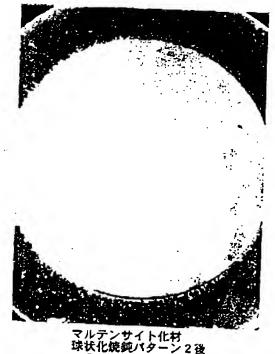


FIG. 21



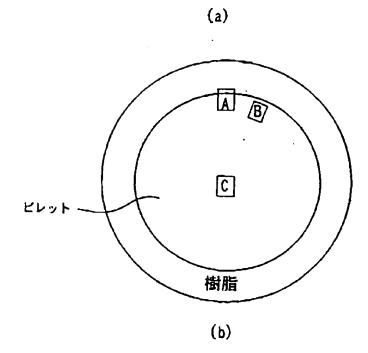


FIG. 22

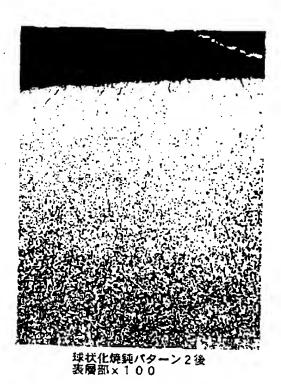


FIG. 23

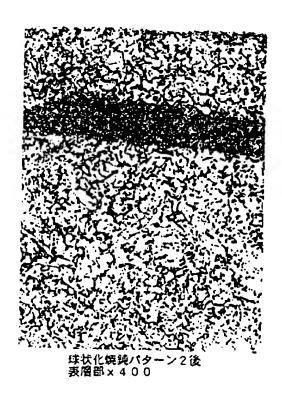
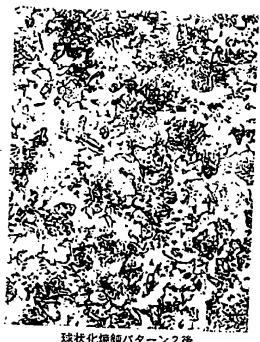


FIG. 24



球状化焼鈍パターン2後1/2R部×400

FIG. 25

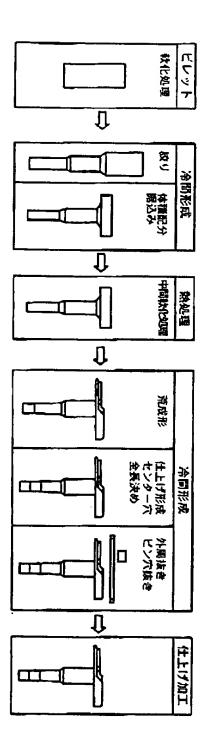


FIG. 26

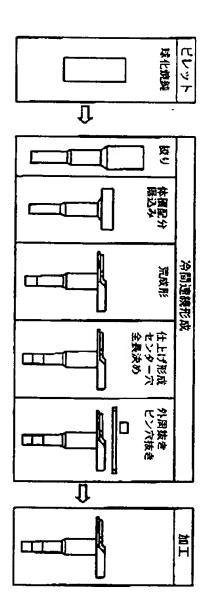


FIG. 27

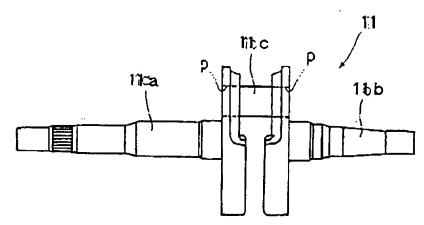


FIG. 28

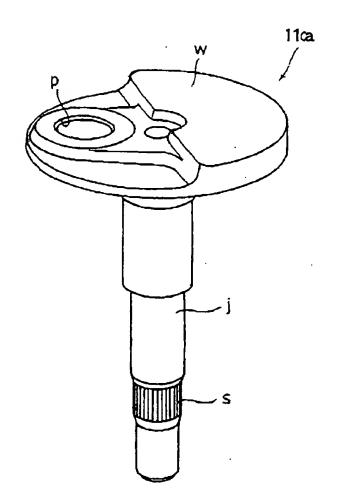


FIG. 29

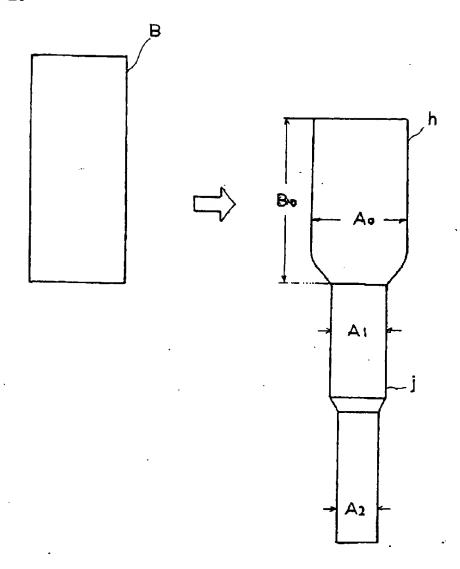


FIG. 30

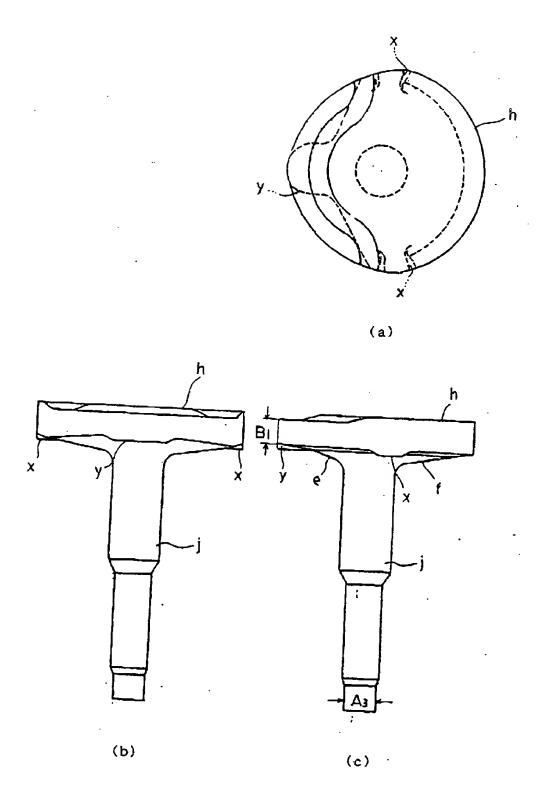
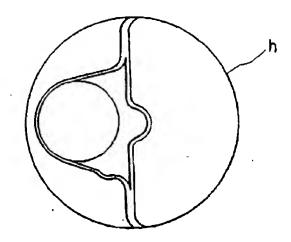


FIG. 31



(a)

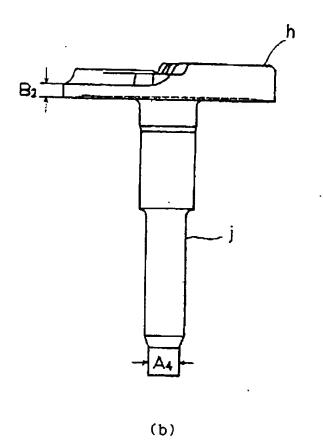
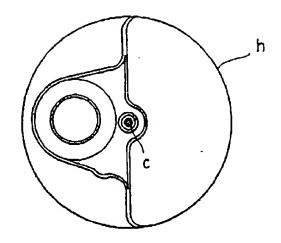


FIG. 32



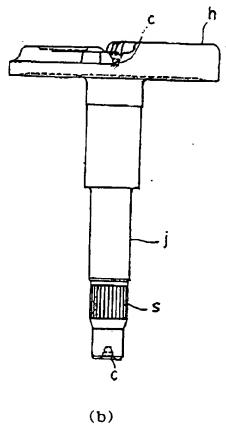
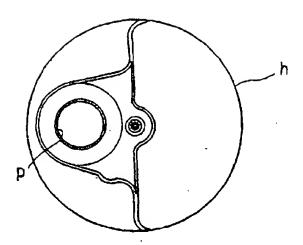


FIG. 33



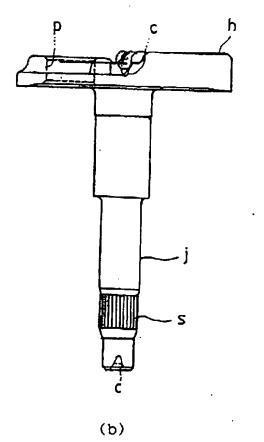
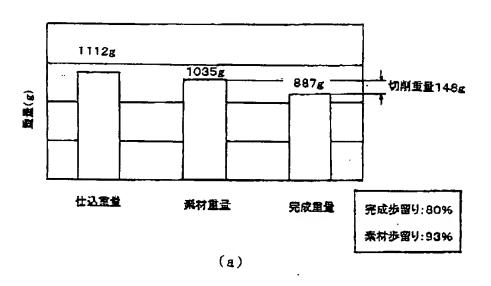


FIG: 34

(本発明の冷間鍛造方法)



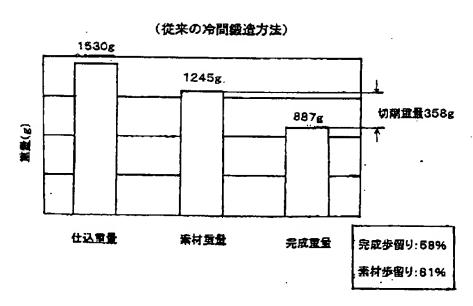


FIG. 35

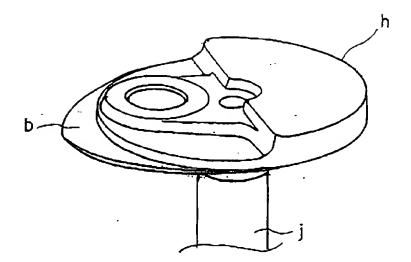
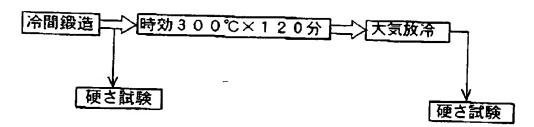
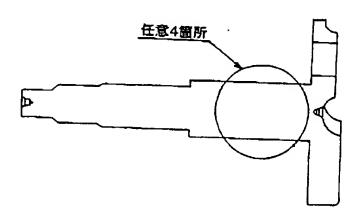


FIG. 36





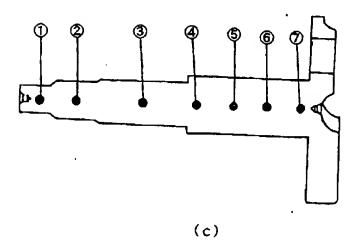
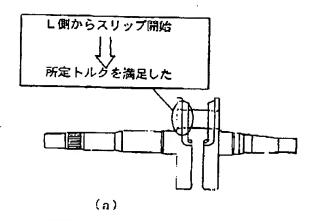
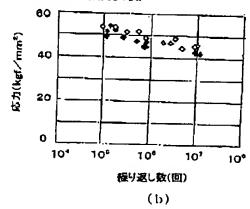


FIG. 37

スリップトルク



S-N曲線(回転曲げ疲労試験)



S-N曲線(実体曲げ疲労試験)

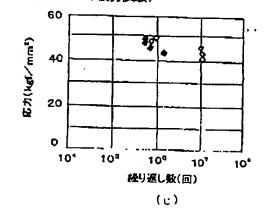


FIG. 38

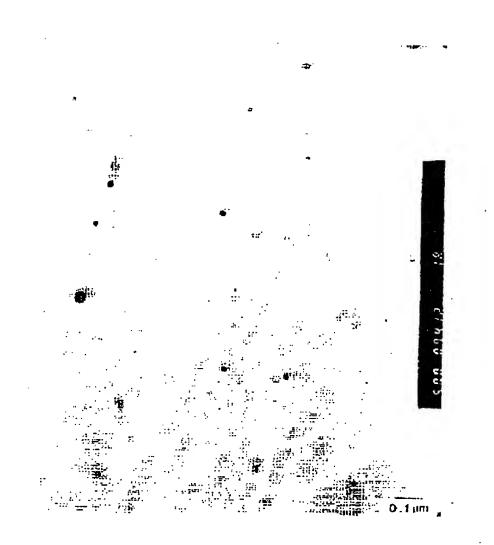


FIG. 39

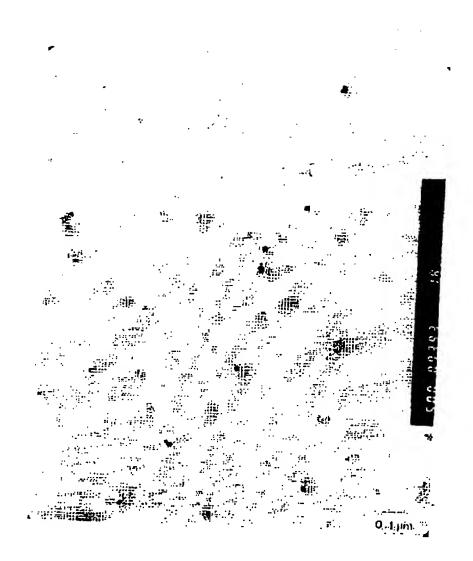


FIG. 40

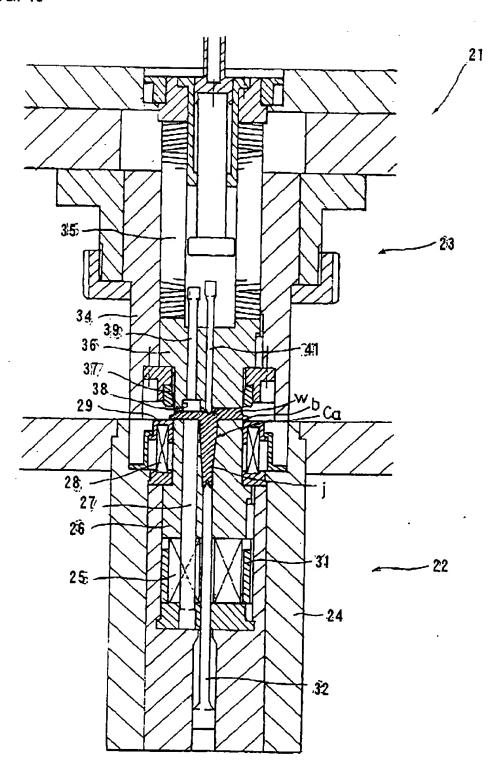


FIG. 41

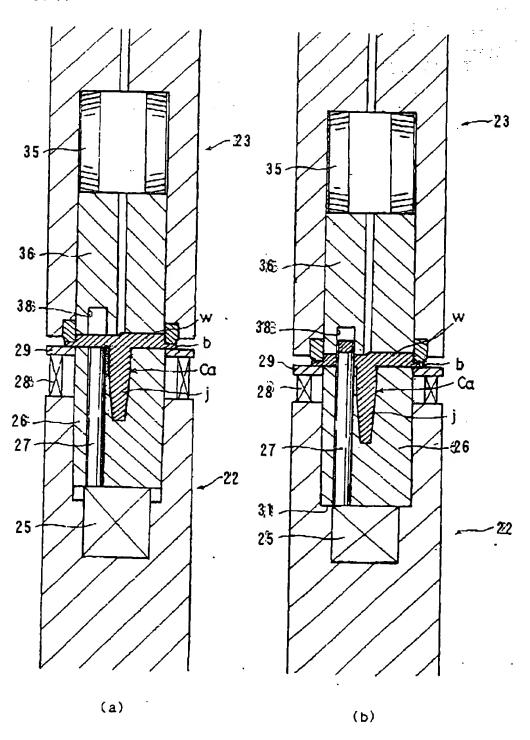


FIG. 42

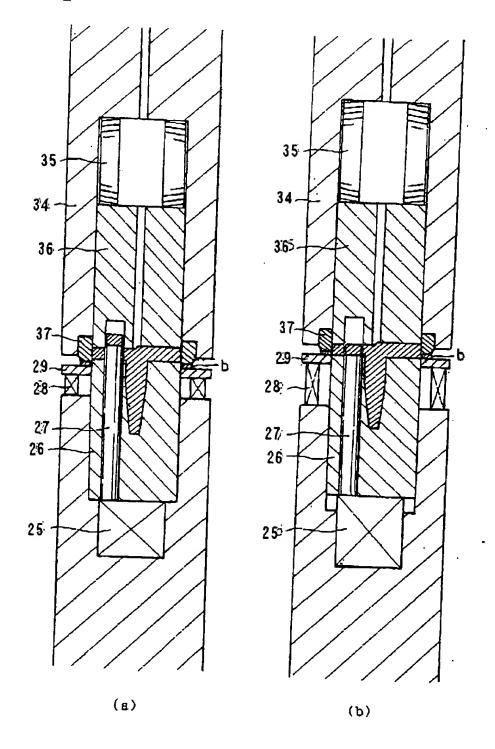


FIG. 43

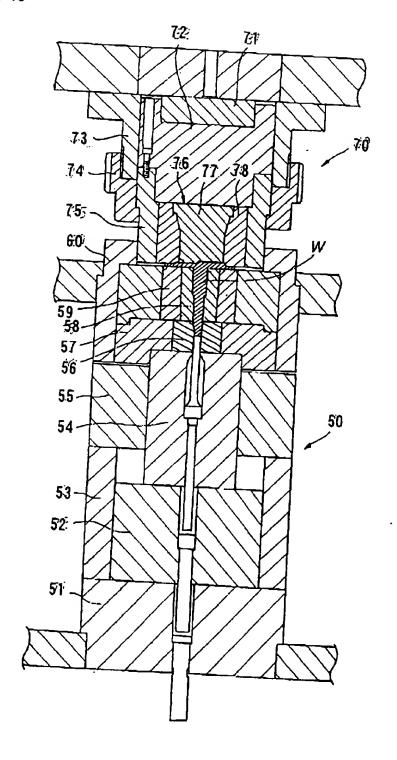


FIG. 44

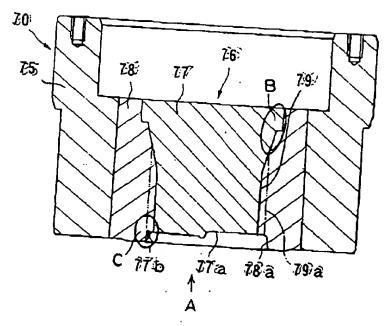


FIG. 45

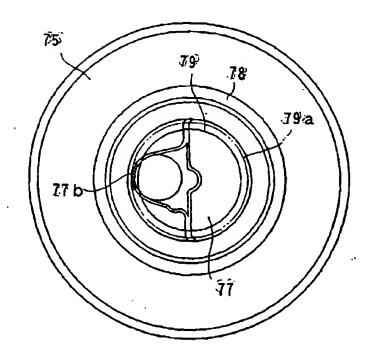


FIG. 46

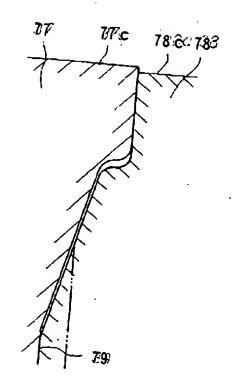


FIG. 47

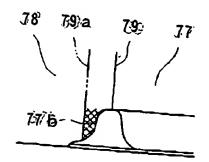
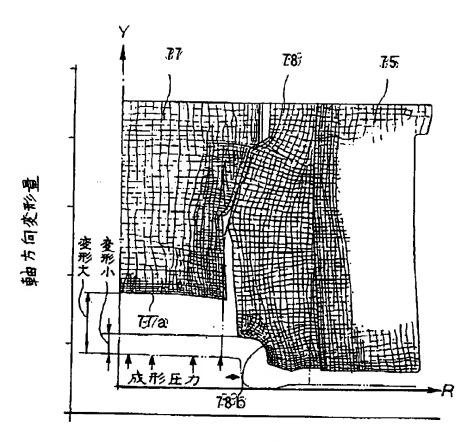


FIG. 48



径方向,位置